

ABSTRACT OF THE DISCLOSURE

A weight-detecting system for detecting the weight of an occupant sitting on a seat includes inner and outer weight-detecting units. The outer weight-detecting unit includes strain resistors mounted on a lower surface of its sensor plate. The inner weight-detecting unit includes strain resistors mounted on an upper surface of its sensor plate. When output voltages from the outer weight-detecting unit are represented by A and B, and output voltages from the inner weight-detecting unit are represented by C and D, the weight of an occupant is detected based on a value $A+B+C'+D'$ provided by adding output voltages C' and D' resulting from the inversion of the output voltages C and D to the output voltages A and B. The weight-detecting units have the same characteristic of change in output voltages with respect to change in temperature. Therefore, when the output voltage (A+B) is added to the output voltage (C'+D'), a detection error due to a change in temperature can be counterbalanced. Thus, the weight of the occupant sitting on a seat can be detected accurately without being influenced by the change in temperature.